



BROOKHAVEN BULLETIN

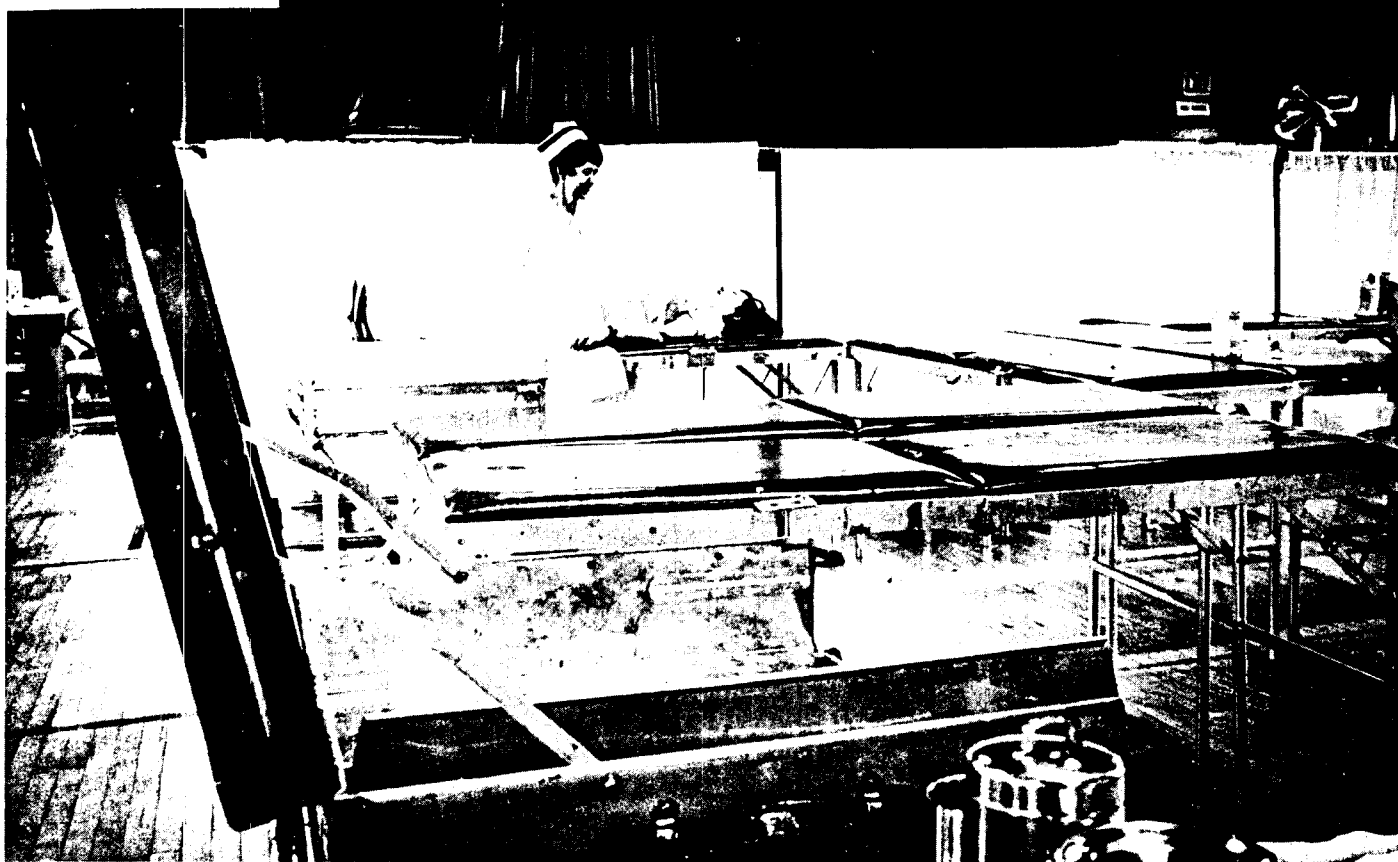
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July 15, 1971

Blood Donor Finalist



Mrs. George Adler stretches out on a portable bed in the Gymnasium on Tuesday, June 30, as she gives blood for the Brookhaven Laboratory Blood Program. Mrs. Adler was the last donor for the two-day program,

and a few minutes after she completed her donation, beds, tables and equipment was packed away and placed on trucks to be shipped to the next stop on the Bloodmobile schedule.

Infant Blood Program Already Serves BNL

Within three days of the collection of 810 pints of whole blood at Brookhaven, three requests for blood had been processed by Coordinator Alf Christoffersen.

In all, 879 prospective donors came to the gymnasium on the two days that the Bloodmobile was at BNL. 69 donors were unable to make their donation at this time, and 50 more arranged to have their blood donation taken at another location.

The 810 pints that were donated at Brookhaven made possible the benefiting of 1194 individuals. 682 pints were used as whole blood, and 128 pints were made into quad packs which divided the blood into four parts of different constituents for specialized use.

According to Alf Christoffersen, "The success of the Brookhaven Program was due to the basic enthusiasm of the people who made it work. I would like to extend my personal thanks to all of the donors and volunteers who gave so unselfishly to make this a smooth-running operation."

The procedure for drawing blood from the Brookhaven Blood Program is simple. Just inform hospital authorities of the Lab's membership in the Greater New York Blood Program. Afterwards, call Personnel Services at the Lab, and the necessary paper work will be done by them.

If you missed the chance to donate blood at Brookhaven and want to give a pint now, call Coordinator Alf Christoffersen for the location of the nearest place to make your donation.

Will New Discovery Simplify Understanding of Physics?

A step, or as one physicist described it, "perhaps a big stride," toward greater simplification of our understanding of the basic forces binding atoms together in nature was recently taken at Brookhaven National Laboratory.

By putting together the information obtained in four separate experiments involving approximately 413,000 particle track photographs, the scientists were somewhat surprised to discover that the manner in which a proton behaves and breaks apart in a high-energy collision is apparently the same whether the proton is hit by other protons, by pi-mesons, or by K-mesons.

They found, for example, that the number and the observed properties of the collision-produced pi-mesons were very similar in all four experiments. The results imply that not only is the break-up of the proton independent of the identity of its colliding partner, but to some extent is also independent of the energy of its colliding partner.

The four separate experiments used in this study involved collisions of protons with protons, protons with positive K-mesons, protons with positive pi-mesons, and protons with negative pi-mesons.

The physicists who studied the four experiments were from Brookhaven, the University of Rochester, and the University of Wisconsin. The experiments were originally performed using the Alternating Gradient Synchrotron over the past two years by researchers from the Universities of Rochester, Vanderbilt, Wisconsin and Yale, and BNL.

Protons Are Missiles

In the AGS, billions of protons are electronically fired around a half-mile circular vacuum tube surrounded by 240 magnets. The magnets increase the speed and energy of the protons until they are traveling at more than 185,000 miles per second with an energy of up to 33 billion electron volts, at which time a target is inserted in their path. The force of the collision between the speeding protons and the atoms in the target material produces a host of sub-atomic particles.

Many types of particles are known to exist in our universe. These elementary particles can be classified into the following three broad categories. (1) Leptons, which are the lightest constituents of matter. (2) Mesons, which are the middle-weight constituents of matter, and are often referred to as the "glue" that holds together the protons and neutrons inside the nucleus. (3) Baryons, which are the heavy constituents of matter. Protons and neu-

(Continued on page 4)

NAL On The Way To 200-BeV Goal

A proton beam was guided through the entire National Accelerator Laboratory system for the first time at 6:44 a.m., CDT, Wednesday, June 30, 1971. The beam was accelerated to 7 Billion Electron Volts in the Linear Accelerator and Booster Accelerator system and then "coasted" through the largest component in the NAL accelerator system - the Main Accelerator, which is four miles in circumference.

The Main Accelerator staff continued beam studies until Thursday night and then shut down for the holiday week-end. The next milestone facing the Accelerator System crew is to accelerate the protons in the Main Ring, working up to the system's full original design energy of 200 Billion Electron Volts.

The National Accelerator Laboratory is operated by the Universities Research Association, Inc., of Washington, D.C., for the U.S. Atomic Energy Commission.

LAMPF Program Planners Examine 68 Proposals

The Los Alamos Meson Physics Facility Program Advisory Committee met last week to consider proposals for beam time on the yet-to-be-completed linear accelerator.

Brookhaven members of the Program Advisory Committee are: Dr. Ronald R. Rau, Associate Director for High Energy Physics; and Dr. Gerhart Friedlander, Chairman of the Chemistry Department, who is representing Dr. A.M. Poskanzer of Lawrence Radiation Laboratory.



Jim Gilmartin (I&HP) explains AGS vital statistics to Health Physics Society member R.G. Anderson of the Atlantic Richfield Co.

BNL Gets New Number

BNL's FTS Identification Code has been changed to 6CB-89-52, effective July 1, 1971.

The GSA (General Services Administration) operators will not complete any FTS calls to or from Off-Net-Locations unless the caller furnishes the following information:

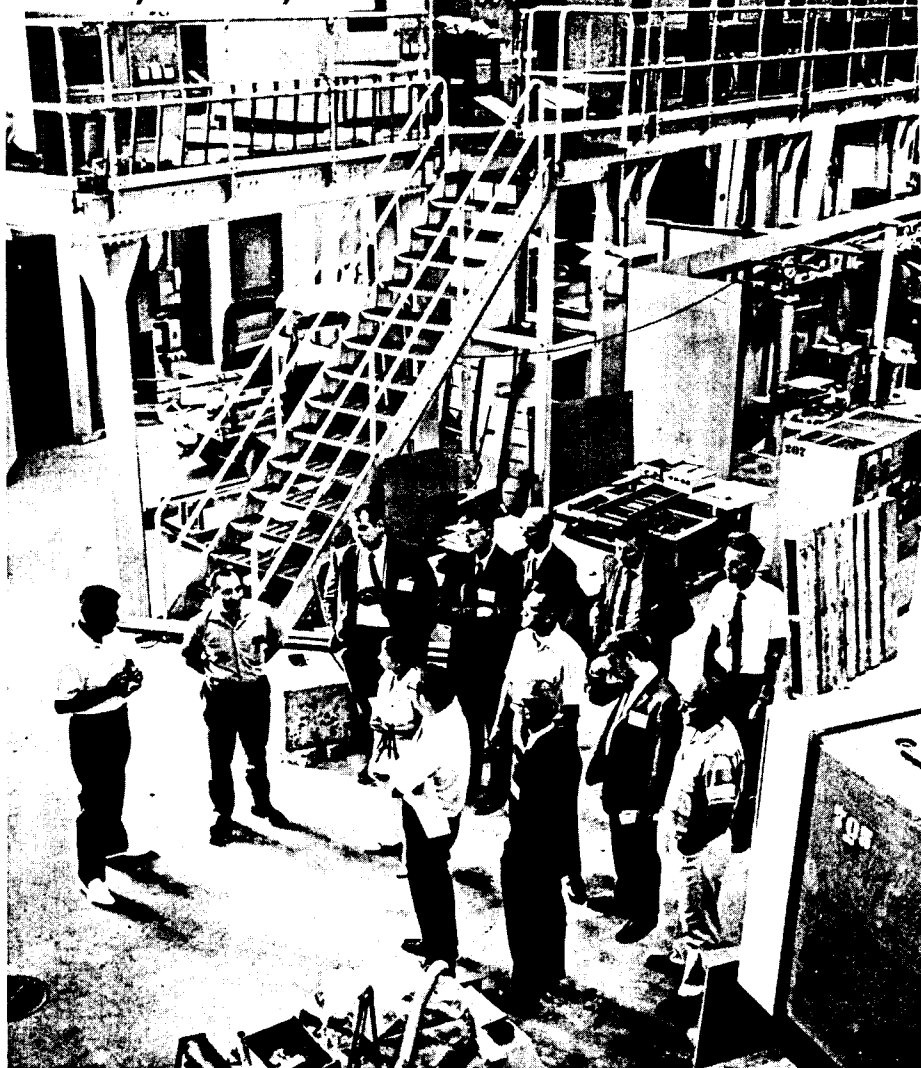
- Name
- Identification Code
- The called number
- Confirmation that the call is official, and
- Notification of travel status.

The new Code number will appear inside the front cover of the new BNL Telephone Directory and should be noted on FTS Authorization Cards.

Strike News

The meeting between the Laboratory and the Union negotiating committees held Monday at Plainview were scheduled to continue Wednesday, July 14, at 10:30 a.m. The meetings, which are under the auspices of the Federal Mediation and Conciliation Service, were scheduled by Commissioners Bottone and Hacker.

Health Physics Society Tour



Thirty members of the Health Physics Society who are attending the association's annual meeting in New York this week, toured Brookhaven National Lab as part of a program of visiting several major research institutions on the east coast. Members of the Health Physics Division at Brookhaven were host to the group that went to the AGS, the 200-MeV Linac, the HFBR, the Tandem Van de Graaff and the Medical Department. Marty Plotkin (at foot of stairs) explained experimental set-ups at the AGS.

Flasks, Facts, And Franz



Miss Franz draws on her "old-fashioned" chemistry to separate out those desired rare earth elements from the target material that has been bombarded with high energy protons at the AGS.

Analysis Of A Chemist
—Eena Mai Franz

If you had to describe her in a word, I guess "athleticattractiveconservativeliberal" would suffice. All labels aside, you may meet her on the tennis courts after work. Or at the AGS at 2:00 in the morning. Or perhaps at a yoga retreat in the Catskills.

Sun-bronzed, blonde, and actively slim, Eena-Mai Franz does not exactly conform to the stereotypic horn-rimmed eye-glassed bookworm female scientist.

"It's a great place to work," she said about BNL. "You're out in the country, you don't have to commute far, it has excellent facilities, and the beach is nearby."

Coming to Brookhaven in 1962 as a chemist after working for Isotopes, Inc., Miss Franz intended only to work here for a few years with Dr. Gerhart Friedlander. "I just stayed because I like it very much," she explained.

An Analytical Chemist

A member of the nuclear chemistry group, she divides her working time between the experiments at the AGS and analytical chemistry in the laboratory. Since experimental science demands are often characteristically oblivious to regular hours and since the AGS is no exception, working around the clock is not uncommon for her.

"This is the first summer with the AGS being down that my time is my own, and I can make private plans. The whole winter a co-worker and I had to take turns coming in weekends to count samples."

A graduate of Upsala College in New Jersey, Eena-Mai holds the distinctions of being the only woman and also the only non-PhD in her group. Acknowledging the possible difficulties of her position, she stated, "I would like to have my PhD because I would know more if I had gone to school longer. Obviously for my own interests it would be nice to have a degree. But I have never felt the lack of it due to other people's attitudes at Brookhaven. In industry, it's different and I think it all depends on who you work with."

"In my previous job some years ago," she continued, "I know for a fact there was discrimination against women especially in salaries. I was paid less than my male equivalents."

Women's Lib

For this reason Miss Franz agrees with women's lib and feels that the movement is changing things as far as salaries and jobs are concerned. Yet, she also has reservations. "They're fanatical in some respects; but to get anything done at all, I think you have to go to extremes to get any results."

A year ago she was active with other area women in the fight to repeal the abortion law. "This year we're fighting to keep it the way it is. I don't think any man should ever have a word to say about a woman having an abortion. It is a completely personal matter."



Eena-Mai Franz

Although there is an unfortunate societal stigma against being unmarried, this fact seems like more of an advantage rather than a handicap for Eena-Mai. When she isn't playing tennis, or helping the theatre group, or sailing, she is skiing in Vermont or watching a Mozart opera in the city, depending upon the season.

Single at Brookhaven

"I am sure," she stated, "that if I had lived in a different type of community or if I had stayed at home and worked in industry, I would find it very difficult to get along as a single girl. But here there are always people who are single and nobody really cares what your private life is like. There are always enough single people around that I never have felt out of place."

Although she is a member of the BERA Awards Program Committee that presents trophies and other awards at tournaments and playoffs for the various sports on site, she has not yet allowed herself the opportunity to gain one of those prizes and perhaps unfairly underrates herself. "Every year I keep putting off being in the tennis tournament by another year. I keep saying I'm not good enough. There are some women here who are very good, then there are the ones like myself who are pretty bad and there is a big gap. The gap has been getting smaller, but I still feel that I'm not good enough."

Born in Estonia

Being born in Estonia and later experiencing the horrors of war, as in 1944 when she and her family traveled from Berlin all the way to Stuttgart — "always keeping just one step ahead of the Russians" — has instilled in her a very strong anticommunist feeling. "We all left," she explained, "because we were scared of the Russians. My father was taken to Siberia, and my brother was killed by them. And we just felt if we stayed behind the same thing would happen to us."

Although an immigrant, Eena-Mai has completely adapted to the United States and appreciates this country perhaps more than many native Americans. She admits that it is not perfect but still affirms that it is the best of all the other nations.

Describing herself as conservative and anticommunist and having experienced one world war, Miss Franz said, "I was very much for the Vietnam war in the beginning. Now I'm not that much for it anymore. But I have a feeling that the Communists won't talk or concede anything, because they know we're going to pull out anyway. I think the United States has always been very naive when it comes to dealing with the Communists. We give in to them too much."

Overlooking the tennis courts is her office containing a pictorial menagerie (all that is lacking is a photograph of her own adopted stray dog Archie) and a begonia plant sprouting from a beaker filled with water. To the geometric structures where she works, Eena-Mai Franz lends an athletic grace.

—Johnson

Personnel Services
At the Recreation Office
Open Daily 9:00 a.m. to 1:00 p.m.

Here and There

Claire Lamberti

Jack E. Jensen (Accel) presented a talk on July 1 at the International Working Session on Fusion Reactor Technology at ORNL; the title of his talk was "Cryogenic Engineering Aspects of Pulsed and Steady State Coils."

Peter H. Rich (Biology) recently presented a seminar on "The carbon budget of a lake benthos" at Dartmouth College, Hanover, New Hampshire.

Ruth Halaban (Biology) recently presented a seminar at the Department of Biological Sciences, SUNY at Albany on "Factors affecting the inductive phase of photoperiodically controlled flowering of *Lemna perpusilla*."

Powell Richards (DAS) was elected to a four-year term on the Board of Trustees of the Society of Nuclear Medicine at their 18th Annual Meeting in Los Angeles, June 27 to July 2.

Robert Steele (Biology) represented BNL at the Coastal Ecosystem Studies Conference held at the University of Houston in Houston, Texas, June 29-30.

Arrivals & Departures

Arrivals

None

Departures

Nancy W. Griffin.....Appl. Math.

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Published Weekly for the Employees of Brookhaven National Laboratory

CARL R. THIEN, Editor
CLAIRE LAMBERTI, Editorial Assistant

40 Brookhaven Ave. Upton, N.Y. 11973
Telephone 516 924-6262 Ext. 7238

NORBERT J. DERNBACH
Public Relations Officer

Letters
To The Editor

Dear Sir:

I am not sure if all of Patrolman Sal Gianino's friends are aware of his condition. He has been in a coma since an auto accident early on July Fourth.

He has not regained consciousness as of this date. He has also undergone brain surgery. Sal's youngest daughter, Maria, was killed. His youngest son Joseph, remains in Mather in traction with a severe spinal injury. His wife and another daughter suffered face and head lacerations, but they are both home.

If any one of his friends would like to help with funeral expenses, would they please forward their donations to me at Police Headquarters, Building 50, 24 Upton Road.

At a time like this, Sal needs all the prayers and help he can get.

—Ptl. Michael McAllister

Safety Shoes

There will be no issue of safety shoes on Monday, July 26th, and Thursday, July 29th, due to shoe fitter's vacation.



Summer Idyll



Cool water in a tree-shaded stream with a pretty girl in lonely loveliness is an uncommon picture on the grounds of Brookhaven. Perhaps the discerning photographer was thinking of the fairy tale of the princess who found a frog and with love converted it into a handsome prince. All of the elements are available to dreamers at the Lab. The miniature Walden Pond does exist on site, and has been used for a noontime dip by some members of the Lab staff. Nature lovers have bird-watched here, and just plain lovers have watched the sun go down over the trees in the background. Peggy DeLoria won't say which category she is in, but the frog looks like a prime candidate for turning into a handsome prince!



Myth
And
Marriage

Four-fifths of the cast of *Helena's Husband* are represented by Darlene Yelon (foreground) and Bill Yelon, Rich Silbergliitt, and Rho Silbergliitt (l to r rear). Missing from the picture but very much in evidence in the play was Mike Losquadro.



Rho Silbergliitt, who as Helena, Queen of Sparta, is willingly seduced by Paris, played by Rich Silbergliitt.



Bill Yelon, as King Menelaus, plots to be rid of his talkative wife.

Myth And Marriage
An Evening Of Two One-Act Plays

Helena's Husband -
Directed by Bob Kinsey

Rho Silbergliitt
Helena, Queen of Sparta
Darlene Yelon
Tsumu, her slave
Bill Yelon
Menelaus, King of Sparta
Mike Losquadro
Analytikos, Adviser to the King
Rich Silbergliitt
Paris, Prince of Troy

The Golden Fleece -
Directed by Don Peierls
with
Julie Peierls and Robert Marr

Produced by Nancy Chesser
Stage Manager: Bert Farmer
Set Design: Rich Silbergliitt
Poster Design: Pat Campbell
Costumes: Nancy Chesser, Ann Miller, Rho Silbergliitt, and Darlene Yelon
Set Construction: Nancy Chesser, Darlene Yelon, and Bill Yelon

Performances:
Thursday Night 8:30 p.m.
Friday Night 8:30 p.m.
In Air-Conditioned Berkner Hall

Tickets:
\$1.50 Adults - \$.75 Children

If You Miss Them
You'll Be Sorry!

Greek mythology at BNL? For a popular audience? On a bare stage with a minimum of props?

Right!
And besides, not only are you going to enjoy it, but you are also going to leave the theatre convinced that this is the slickest, most humorous presentation you have seen in a long while, amateur or professional!

Helena's Husband, the first presentation of the evening, has all the elements of a "now" movie with an "R" rating. The action takes place in the bedchamber of a frustrated queen with a dove husband who has a hawk advisor.

Rho Silbergliitt, the queen, finally gets seduced by Paris (Rich Silbergliitt). The King, (Bill Yelon) thinks he has solved all of his problems by secretly helping the seduction, but gets zapped by his advisor (Mike Losquadro). Darlene Yelon, who plays a talkative slave, gets what she wants from the whole deal.

This is a fast-moving story, but easy to keep up with because of the superb craftsmanship of all of the actors.

The second half of the program is a surprise. If you can imagine Elaine May and Mike Nichols setting the scene for a greek tragedy, you will have some idea of what is in store for you. Julie Peierls and Bob Marr have a few surprises for the audience that will be remembered at Brookhaven for many years to come.

If you miss this play, you've blown it! Laughter is an exertion, and these hot nights it's a good thing that Berkner Hall is equipped with an efficient cooling unit.

The entire evening is intimate(!) in the best off-Broadway style. Ticket prices are the only thing non-professional about this program. \$1.50 for adults and \$.75 for children.

There are only two performances left. Tonight (Thursday) and Friday, with curtain time at 8:30 p.m. in Berkner Hall.

Don't miss this show!

Tennis Deadline
Today - 2:00 p.m.

Deadline for entries in the '71 BERA Tennis Tournament is at 2:00 p.m. today. If insufficient entries have signed up at the recreation office by the deadline, the Tennis Committee will reach a decision (depending on how many entries are lacking) whether to cancel the event or extend the signup period. In any event, a suitable notice will be posted in the gymnasium on Friday, July 16.

The drawings and schedules will be posted on charts in the gymnasium. Participants should schedule their matches within the week shown on the posted charts.

It will be appreciated if all tennis players who are not participating in the tournament schedule their games for hours other than at noon (11:30-1:30) or directly after work, during the first two weeks of the tournament. The first round in men's singles generally requires at least 16 matches (all during the first week), and the remaining events make for a full and tight two weeks of play.

So, please, those of you who want to play tennis and are not in the tournament, try to schedule your play so as to avoid a conflict with those contestants who have to complete their matches during the first two weeks. After the early rounds of the tournament there shouldn't be any problems.

Cafeteria Menu
Week Ending July 22, 1971

Friday, July 16	
Manhattan Clam Chowder	
Fried Fillets of Sole w/Tartar Sauce & French Fries	.95
Codfish Cakes w/Tomato Sauce & Spaghetti	.80
Baked Beef Loaf w/Savory Gravy & 1 Veg.	.85
Monday, July 19	
Cream of Tomato Soup	
Breaded Pork Chop w/Applesauce & 1 Veg.	.95
Beef Ravioli w/Parmesan Cheese & 1 Veg.	.90
Beef Livers w/Smothered Onions & 1 Veg.	.85
Tuesday, July 20	
French Onion Soup	
Salisbury Steak w/Brown Gravy & 1 Veg.	.85
Frankfurters Rolled in Bacon w/Baked Beans & Cole Slaw	.85
Sliced Turkey & Stuffing w/Cranberry Sauce, Giblet Gravy & 1 Veg.	.90
Wednesday, July 21	
Vegetable Soup	
Chinese Pepper Steak on Rice	.90
Old Fashioned Chicken Pie w/Biscuit Crust	.95
Flounder Stuffed w/Crabmeat, Tartar Sauce & 1 Veg.	.90
Thursday, July 22	
Turkey Noodle Soup	
Grilled Monte Cristo Sandwich,	
Currant Jelly & Potato Chips	.85
Beef Pattie w/Noodles Oregano	.85
Braised Beef a la Mode & 1 Veg.	.95

Diamond News

by Dean Easler

After defaulting last week with no report due to holidays, a vacation day, and light reporting, the news is back this week. There will be several missing scores because of the strike but here is what's on hand at Brookhaven Bulletin deadline.

In the National League, week before last, the Chemistry team squeezed by the Six-Pax 9-2 as they were sparked by home-runs from Dan Haas and Y. Kitaoka. Chemistry also won last week 12-7 over the Deadwoods in a well played game. Homers were belted out by Bill Crockett of the Deadwoods and by Pat Rapp and Ron Finn of Chemistry.

Continuing to win, the Pop-Ups, week before last, downed the Deadwoods 21-8 on a total of 28 base hits including home-runs by Artie Dick and Dale Benos. It is known (although no score is available) that S&M also won that week so that the Pop-Ups and S&M are still tied up in first place with 6-1 won-lost records.

In the Laboratory League, week before last, the Converts forfeited to the Survivors. Last week the Bio-Meds won over the Survivors 12-9 with Dick Ruffing homing for the Bio-Meds.

Finally, in the Brookhaven League last week the Old Timers came from behind to defeat AMD 18-7 and became the first half champs. The Old Timers, playing with nine men, went into the 6th inning trailing 5-4 and proceeded to score 10 consecutive runs before making their first out. Big Mike Zguris started the 10 run burst with a single and ended it with a homerun. Two more runs were then added for a total of 12 before they were finally retired in the inning. Four baggers were tagged by Jim Rossler and Neal Carciello for the Old Timers while John Sucher came off the bench to contribute 2 big base hits to the winning cause.

Stony Brook Events

Concerts, films and a theatre production are among the events open to the public at the State University of New York at Stony Brook between Friday, July 16, and Thursday, July 22.

Unless otherwise indicated, the events are open to the public without charge.

Friday, July 16
A craft exhibit and bazaar of works from members of the university community will run from 11 a.m. to 3 p.m. in the Stony Brook Union lobby.

Chapter five of the 13-episode "Buck Rogers" film series and chapter four of the 12-episode "The Phantom Creeps" serial will be shown at 12:30 and 1:30 p.m. in the Stony Brook Union Theatre.

An instructional pottery workshop will run from 6-10 p.m. in the Union Craft Shop, fee 50¢ an hour.

The rock group "Circus" will perform at 8 and 10:30 p.m. in the Union Theatre, admission \$1.00. Tickets should be purchased before the performance in the Union Ticket Office.

"The Fixer," a film adaptation of Bernard Malamud's novel, will be shown at 8 p.m. in Room 100 of the Lecture Center, admission 50¢.

Saturday, July 17
"The Fixer" will be repeated at 8 p.m. in the Union Theatre, admission 50¢.

Sunday, July 18
The Palmer Chamber Ensemble will perform works for four-hand piano and vocal accompaniment, including "Six Epigraphes Antiques" by Debussy, Schubert songs, "Sonata in B Flat Major" by Mozart and "Mother Goose Suite" by Ravel at 2 p.m. in the Union Theatre.

"The Fixer" will be repeated at 8 p.m. in the Union Theatre, admission 50¢.

Monday, July 19
Chapter six of the "Buck Rogers" film series and chapter five of "The Phantom Creeps" will be shown at 12:30 and 1:30 p.m. in the Union Theatre.

Tuesday, July 20
Chapter seven of the "Buck Rogers" series and chapter six of "The Phantom Creeps" will be shown at 12:30 and 1:30 p.m. in the Union Theatre.

The showing of Sir Kenneth Clark's noted film series "Civilisation" continues with Chapter 10, "The Smile of Reason," at 3 and 8 p.m. in the Union Theatre, admission 25¢.

Wednesday, July 21
Chapter eight of the "Buck Rogers" series and chapter seven of "The Phantom Creeps" will be shown at 12:30 and 1:30 p.m. in the Union Theatre.

Continuing a Children's Film Festival, "Cassandra Cat" will be shown at 6:30 p.m. in the Union Theatre, admission 50¢.

Thursday, July 22
Chapter nine of the "Buck Rogers" series and chapter eight of "The Phantom Creeps" will be shown at 12:30 and 1:30 p.m. in the Union Theatre.

Kenneth Clark's "Civilisation" continues with chapter 11, "The Worship of Nature," at 3 and 8 p.m. in the Union Theatre, admission 25¢.

